

REMARKS

Status of Claims:

Claims 1-50 were originally filed with the patent application. Claims 41-50 were canceled and Claims 51-60 were added in the First Preliminary Amendment of February 25, 2004. Claims 61-80 are being added herein to place subject matter that is indicated to be allowable by the Examiner in independent form. Therefore, Claims 1-40 and 51-80 will be pending upon entry of this Amendment and Response.

Office Action References:

Applicant expressly reserves the right to respond to any rejection using one or more U.S.C. §102(e) references by filing an appropriate affidavit under 37 C.F.R. §1.131 in any subsequent Response.

Allowable Subject Matter:

The Examiner indicated in the October 29, 2003 Office action that original Claims 8, 17-20, 24-26, 33, 34, 36-40, 54, 55, and 60 would be allowable if presented in independent form, and that original Claims 22-23 would be allowable pending addressing a §112 issue and upon presenting the same in independent form. The following claims have been added to place the above-noted claims into independent form (the corresponding original claim being identified in the corresponding parenthetical): new Claim 61 (original Claim 8); new Claim 62 (original Claim 17); new Claim 63 (original Claim 18); new Claim 64 (original Claim 19); new Claim 65 (original Claim 20); new Claim 66 (original Claim 22, but amended in accordance with the above-noted amendment of Claim 21); new Claim 67 (original Claim 23); new Claim 68 (original Claim 24); new Claim 69 (original

Claim 25); new Claim 70 (original Claim 26); new Claim 71 (original Claim 33); new Claim 72 (original Claim 34); new Claim 73 (original Claim 36); new Claim 74 (original Claim 37); new Claim 75 (original Claim 38); new Claim 76 (original Claim 39); new Claim 77 (original Claim 40); new Claim 78 (original Claim 54, and amended to change one occurrence of "first base attachment cantilever" to "first base plate attachment cantilever"); new Claim 79 (original Claim 55, and amended to change one occurrence of "first base attachment cantilever" to "first base plate attachment cantilever"); and new Claim 80 (original Claim 60, and amended to change one occurrence of "first base attachment cantilever" to "first base plate attachment cantilever").

Independent Claim 1:

Claim 1 is directed to a load/unload ramp assembly for a disk drive that includes a load/unload ramp and a first base plate attachment cantilever that is used to secure the load/unload ramp assembly to the disk drive base plate. A "cantilever" is a simply supported beam. Therefore, the first base plate attachment cantilever includes a first free end and a first fixed end. Furthermore, the first base plate attachment cantilever is configured such that its first free end is separated from an underlying portion of the base plate by a first open space when the load/unload ramp assembly is initially positioned on the base plate. A fastener is used to secure the load/unload ramp to the base plate. Specifically, the first base plate attachment cantilever is configured and positioned such that a shaft of this fastener passes by the first base plate attachment cantilever and into engagement with the base plate, and further such that the head of the fastener contacts the base plate attachment cantilever. Reducing the spacing between the head of the fastener and the base plate causes the head of the fastener to exert a force on the first base plate attachment cantilever. This force deflects the first free end of the first base plate attachment cantilever through the first open space, toward the

base plate, and at least generally about the first fixed end of the first base plate attachment cantilever so as to direct the load/unload ramp assembly into forcible engagement with the base plate.

Claim 1 stands rejected under 35 U.S.C. §102(b) based upon U.S. Patent No. 5,995,330 (hereafter "Furay"). Applicant respectfully requests reconsideration since Furay does not disclose the combination of features required by Claim 1. The Examiner takes the position that the slots 17 in the cam assembly 14 of Figure 9 of Furay define cantilevers that are engaged by a fastener 16. There is no disclosure in Furay that the triangularly-shaped portions of the cam assembly 14 referred to by the Examiner (the portions of the cam assembly engaged by the fastener 16) are separated from the underlying base plate 3 by an open space when the cam assembly 14 is initially positioned on the base plate 3, in contrast to the requirements regarding the first base plate attachment cantilever in Claim 1. Furthermore, there is no disclosure in Furay that reducing the spacing between any head of the fastener 16 and the base plate 3 exerts a force on the triangularly-shaped portions of the cam assembly 14 that deflects a free end of such triangularly-shaped portions through any open space, toward the base plate 3, and at least generally about a fixed end of the triangularly-shaped portions so as to direct the cam assembly 14 into forcible engagement with the base plate 3, in contrast to the requirements regarding the first base plate attachment cantilever in Claim 1.

Claim 1 further stands rejected under 35 U.S.C. §102(e) based upon U.S. Patent Application Publication No. 2002/0039258 A1 (hereafter "Noda"). Initially, Applicant notes that the corresponding provisional patent application has a filing date of February 16, 2001, whereas Noda has a U.S. filing date of September 16, 2001. Claim 1 is supported by the corresponding provisional patent application. Therefore, Noda is not 102(e) prior art to the above-captioned patent application.

Further grounds support the patentability of Claim 1 over Noda. Noda does not disclose the combination of features required by Claim 1. The Examiner takes the position that the frame 90 in

Figure 4 of Noda defines a cantilever that is engaged by a fastener 90a to secure the frame 90 to the pedestal portion 21c of the stator 21 of the spindle motor 20. Specifically, the Examiner takes the position that the portion of the frame 90 engaged by the fastener 90a is a free end of a cantilever. Therefore, the opposite end of the frame 90 would have to be its fixed end if the frame 90 were indeed a cantilever (not admitted). There is no disclosure in Noda that the end of the frame 90 engaged by the fastener 90a is separated from the pedestal portion 21c of the stator when the frame 90 is initially positioned on the pedestal portion 21c, in contrast to the requirements regarding the first base plate attachment cantilever in Claim 1. Furthermore, there is no disclosure in Noda that reducing the spacing between any head of the fastener 90a and the pedestal portion 21c exerts a force on the frame 90 that deflects the end of the frame 90 engaged by the fastener 90a through any open space, toward the pedestal portion 21c of the stator 21, and at least generally about the opposite end of the frame 90, in contrast to the requirements regarding the first base plate attachment cantilever in Claim 1.

Claim 1 further stands rejected under 35 U.S.C. §102(e) based upon U.S. Patent No. 6,201,665 (hereafter "Angellotti"). Applicant respectfully requests reconsideration since Angellotti does not disclose the combination of features required by Claim 1. Initially, reference numeral 34' in Angellotti is not a disk drive base plate, but instead is the outer magnet return path assembly 34' of the linear actuator 16. Moreover, reference numeral 76 is not a fastener, but is a beam 76 of the outer magnet return path assembly 34'. Generally, the load ramp member 40' in Angellotti has snaps 58a', 60a', 58b', and 60b' that simply snap onto the beams 76, 78.

The Examiner takes the position that the snap 58a' corresponds with the first base plate attachment cantilever of Claim 1. Such is not the case. The snap 58a' and its opposing snap 60a' apparently are spread apart when positioned on the beam 76 and "clamp" onto the beam 76 without

the aide of any other structure. The spacing between the beam 76 and the outer magnet return path assembly 34' of the linear actuator 16 is not reduced such that the beam 76 engages the snap 58a' and exerts a force on the snap 58a' to deflect a free end of the snap 58a', through any open space, toward the outer magnet return path assembly 34', and at least generally about a fixed end of the snap 58a' so as to direct the load ramp member 40' into forcible engagement with the outer magnet return path assembly 34', in contrast to the requirements regarding the first base plate attachment cantilever in Claim 1.

Claim 1 further stands rejected under 35 U.S.C. §102(e) based upon U.S. Patent No. 6,181,528 (hereafter "Reinhart"). Applicant respectfully requests reconsideration since Reinhart does not disclose the combination features required by Claim 1. The Examiner takes the position that the base 54 in Reinhart corresponds with the first base plate attachment cantilever in Claim 1. Such is not the case. There is no disclosure in Reinhart that the base 54 is separated from the underlying base plate by an open space when the load/unload structure is initially positioned on the base plate, in contrast to the requirements regarding the first base plate attachment cantilever in Claim 1. Furthermore, there is no disclosure in Furay that reducing the spacing between any head of any fastener and the base plate exerts a force on the base 54 that deflects a free end of the base through any open space, toward the base plate, and at least generally about any fixed end of base 54 so as to direct the load/unload structure into forcible engagement with the base plate, in contrast to the requirements regarding the first base plate attachment cantilever in Claim 1.

Based upon the foregoing, Claim 1 is allowable over each of Furay, Noda, Angellotti, and Reinhart. Claims 2-12, which depend from Claim 1, are thereby also allowable over of Furay, Noda, Angellotti, and Reinhart for the above-noted reasons. There is therefore no need to separately

address the patentability of each of these claims and/or the Examiner's interpretation in relation to any of these claims or any of the references of record in relation thereto.

Independent Claim 13:

5 Claim 13 is directed to a disk drive having a base plate and a load/unload ramp assembly. The base plate includes a boss with a fastener receptacle. The load/unload ramp assembly includes a load/unload ramp and a first base plate attachment cantilever that is used to secure the load/unload ramp assembly to the base plate. A "cantilever" is a simply supported beam. Therefore, the first base plate attachment cantilever includes a first free end and a first fixed end. The first base plate
10 attachment cantilever is separated from an underlying portion of the base plate by a first open space when the load/unload ramp assembly is initially positioned on the base plate and prior to engaging a fastener with the base plate to secure the load/unload ramp assembly to the base plate. Specifically, the shaft of this fastener passes by the first base plate attachment cantilever and into engagement with the base plate such that the head of the fastener contacts the first base plate attachment
15 cantilever. Reducing the spacing between the head of the fastener and the base plate causes the head of the fastener to exert a force on the first base plate attachment cantilever. This force deflects the first free end of the first base plate attachment cantilever through the first open space, toward the base plate, and at least generally about the first fixed end of the first base plate attachment cantilever so as to direct a bottom surface of the load/unload ramp assembly into forcible engagement with the
20 base plate.

Claim 13 stands rejected under 35 U.S.C. §102(e) based upon Noda. Initially and as noted above, the corresponding provisional patent application has a filing date of February 16, 2001, whereas Noda has a U.S. filing date of September 16, 2001. Claim 13 is supported by the

corresponding provisional patent application. Therefore, Noda is not 102(e) prior art to the above-captioned patent application.

Further grounds support the patentability of Claim 13 over Noda. Noda does not disclose the combination of features required by Claim 13. The Examiner takes the position that the frame 90 in
5 Figure 4 of Noda defines a cantilever that is engaged by a fastener 90a to secure the frame 90 to the pedestal portion 21c of the stator 21 of the spindle motor 20. Specifically, the Examiner takes the position that the portion of the frame 90 engaged by the fastener 90a is a free end of a cantilever. Therefore, the opposite end of the frame 90 would have to be its fixed end if the frame 90 were indeed a cantilever (not admitted). There is no disclosure in Noda that the end of the frame 90
10 engaged by the fastener 90a is separated from the pedestal portion 21c of the stator when the frame 90 is initially positioned on the pedestal portion 21c, in contrast to the requirements regarding the first base plate attachment cantilever in Claim 13. Furthermore, there is no disclosure in Noda that reducing the spacing between any head of the fastener 90a and the pedestal portion 21c exerts a force on the frame 90 that deflects the end of the frame 90 engaged by the fastener 90a through any open
15 space, toward the pedestal portion 21c of the stator 21, and at least generally about the opposite end of the frame 90, in contrast to the requirements regarding the first base plate attachment cantilever in Claim 13.

Claim 13 further stands rejected under 35 U.S.C. §102(e) based upon Reinhart. Applicant respectfully requests reconsideration since Reinhart does not disclose the combination features
20 required by Claim 13. The Examiner takes the position that the base 54 in Reinhart corresponds with the first base plate attachment cantilever in Claim 13. Such is not the case. There is no disclosure in Reinhart that the base 54 is separated from the underlying base plate by an open space when the load/unload structure is initially positioned on the base plate, in contrast to the requirements

regarding the first base plate attachment cantilever in Claim 13. Furthermore, there is no disclosure in Furay that reducing the spacing between any head of any fastener and the base plate exerts a force on the base 54 that deflects a free end of the base through any open space, toward the base plate, and at least generally about any fixed end of base 54 so as to direct a bottom surface of the load/unload structure into forcible engagement with the base plate, in contrast to the requirements regarding the first base plate attachment cantilever in Claim 13.

Based upon the foregoing, Claim 13 is allowable over each of Noda and Reinhart. Claims 14-40, which depend from Claim 13, are thereby also allowable over of Furay, Noda, Angellotti, and Reinhart for the above-noted reasons. There is therefore no need to separately address the patentability of each of these claims and/or the Examiner's interpretation in relation to any of these claims or any of the references of record in relation thereto.

Independent Claim 51:

Claim 51 is directed to a disk drive having a base plate and a load/unload ramp assembly. The base plate includes a boss with a fastener receptacle. The load/unload ramp assembly includes a load/unload ramp and a first base plate attachment cantilever that is used to secure the load/unload ramp assembly to the base plate. A "cantilever" is a simply supported beam. Therefore, the first base plate attachment cantilever includes a first free end and a first fixed end. The first base plate attachment cantilever is separated from an underlying portion of the base plate by a first open space when a fastener is in a first position. Moving the fastener from its first position to a second position causes the first free end of the first base plate attachment cantilever to deflect through the first open space, toward the base plate, and at least generally about the first fixed end of the first base plate

attachment cantilever so as to direct the load/unload ramp assembly into forcible engagement with the base plate.

Claim 51 stands rejected under 35 U.S.C. §102(b) based upon Furay. Applicant respectfully requests reconsideration since Furay does not disclose the combination of features required by Claim 51. The Examiner takes the position that the slots 17 in the cam assembly 14 of Figure 9 of Furay define cantilevers that are engaged by a fastener 16. There is no disclosure in Furay that the triangularly-shaped portions of the cam assembly 14 referred to by the Examiner (the portions of the cam assembly engaged by the fastener 16) are separated from the underlying base plate 3 by an open space when the fastener 16 is in a first position, in contrast to the requirements regarding the first base plate attachment cantilever in Claim 51. Furthermore, there is no disclosure in Furay that moving the fastener 16 from a first position to a second position deflects a free end of such triangularly-shaped portions through any open space, toward the base plate 3, and at least generally about a fixed end of the triangularly-shaped portions so as to direct the cam assembly 14 into forcible engagement with the base plate 3, in contrast to the requirements regarding the first base plate attachment cantilever in Claim 51.

Claim 51 further stands rejected under 35 U.S.C. §102(e) based upon Noda. Initially and as noted above, the corresponding provisional patent application has a filing date of February 16, 2001, whereas Noda has a U.S. filing date of September 16, 2001. Claim 51 is supported by the corresponding provisional patent application. Therefore, Noda is not 102(e) prior art to the above-captioned patent application.

Further grounds support the patentability of Claim 51 over Noda. Noda does not disclose the combination of features required by Claim 51. The Examiner takes the position that the frame 90 in Figure 4 of Noda defines a cantilever that is engaged by a fastener 90a to secure the frame 90 to the

pedestal portion 21c of the stator 21 of the spindle motor 20. Specifically, the Examiner takes the position that the portion of the frame 90 engaged by the fastener 90a is a free end of a cantilever. Therefore, the opposite end of the frame 90 would have to be its fixed end if the frame 90 were indeed a cantilever (not admitted). There is no disclosure in Noda that the end of the frame 90 engaged by the fastener 90a is separated from the pedestal portion 21c of the stator when the fastener 90a is in a first position, in contrast to the requirements regarding the first base plate attachment cantilever in Claim 51. Furthermore, there is no disclosure in Noda that moving the fastener 90a from a first position to a second position deflects the end of the frame 90 engaged by the fastener 90a through any open space, toward the pedestal portion 21c of the stator 21, and at least generally about the opposite end of the frame 90, in contrast to the requirements regarding the first base plate attachment cantilever in Claim 51.

Claim 51 further stands rejected under 35 U.S.C. §102(e) based upon Reinhart. Applicant respectfully requests reconsideration since Reinhart does not disclose the combination features required by Claim 51. The Examiner takes the position that the base 54 in Reinhart corresponds with the first base plate attachment cantilever in Claim 51. Such is not the case. There is no disclosure in Reinhart that the base 54 is separated from the underlying base plate by an open space when any fastener is in a first position, in contrast to the requirements regarding the first base plate attachment cantilever in Claim 51. Furthermore, there is no disclosure in Furay that moving any fastener from a first position to a second position deflects a free end of the base 54 through any open space, toward the base plate, and at least generally about any fixed end of base 54 so as to direct the load/unload structure into forcible engagement with the base plate, in contrast to the requirements regarding the first base plate attachment cantilever in Claim 51.

Based upon the foregoing, Claim 51 is allowable over each of Furay, Noda, and Reinhart. Claims 50-60, which depend from Claim 51, are thereby also allowable over of Furay, Noda, and Reinhart for the above-noted reasons. There is therefore no need to separately address the patentability of each of these claims and/or the Examiner's interpretation in relation to any of these claims or any of the references of record in relation thereto.

Conclusion:

Based upon the foregoing, Applicant believes that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

MARSH FISCHMANN & BREYFOGLE LLP

By: 

James L. Johnson
Registration No. 34,193
3151 South Vaughn Way, Suite 411
Aurora, Colorado 80014
(701) 293-7680

Date: 9/28/04